

Title (en)

LOUDSPEAKER SYSTEM FOR SURROUND SOUND WITH REJECTION OF UNDESIRABLE DIRECT SOUND

Title (de)

LAUTSPRECHERSYSTEM FÜR RAUMKLANG MIT UNTERDRÜCKUNG UNERWÜNSCHTEN DIREKTSCHALLS

Title (fr)

SYSTÈME DE HAUT-PARLEURS POUR SON AMBIOPHONIQUE AVEC SUPPRESSION DES BRUITS DIRECTS NON SOUHAITÉS

Publication

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Application

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Abstract (en)

[origin: WO2019042978A1] The invention relates to a loudspeaker system in which a channel emitted to the side and/or to the ceiling and multiple channels are used in order to provide a surround sound experience in the audience area by means of reflection from walls and/or ceilings. These are what are known as the surround sound channels, which are produced by loudspeakers that do not emit at the front. Undesirable output signals are also produced in this case, what is known as direct sound, which enters the audience area directly, without reflections, and disturbs the surround sound experience. To attenuate the undesirable direct sound, a signal appropriately adapted by an FIR filter is transmitted for each surround sound channel by at least one front loudspeaker. The production of a surround sound signal over time is adapted by at least one delay element in this case. In an audience area, direct sound and the adapted signal now meet one another, which means that the direct sound is attenuated. In comparison with the systems known from the prior art, undesirable direct sound is attenuated effectively and simply by using at least one finite impulse response filter (FIR filter) and at least one delay element. The invention additionally relates to a method for attenuating direct sound and for determining filter functions for attenuating direct sound.

IPC 8 full level

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